Before the
Federal Communications Commission
Washington, D.C.

In re:

Omnipoint Philadelphia License, LLC	)	
Authorization to Provide Broadband	)	FCC File No.
Personal Communications Service	)	00093-CW-L-96
In the Philly, PA-Wilm., DE-Trent., NJ Basic Trading Area	)	Callsign KNLF7 15
BTA No. 346	)	
Frequency Block "C"	)	

Demonstration of Satisfaction of Ten Year
Construction Reauirements

Omnipoint Philadelphia License, LLC ("Omnipoint"), the licensee of the above-captioned Broadband Personal Communications Service (PCS) station, hereby demonstrates compliance with the construction requirements of 47 C.F.R. § 24.203.

47 C.F.R. §§24.203(a) and (b) require a broadband PCS operator such as Omnipoint to provide a "signal level sufficient to provide adequate service" to, in the case of A, B or C Block frequencies, one-third of the population within five years and two thirds of the population within ten years of the license date, or, in the case of D, E or F Block frequencies, one-quarter of the population of its licensed area within five years of the license date. Since the captioned license was issued September 17, 1996 this demonstration is timely filed.

As established by the attached Engineering Statement, Omnipoint covers 91.73 percent of the population within the Philly, PA-Wilm., DE-Trent., NJ BTA. As explained in the attached Engineering Statement, this figure is based upon a reliable service signal level of -93 dBm and

uses the 1990 U.S. census data.' The Engineering Statement includes the "maps and other supporting documents" required by 47 C.F.R. §203(c).

For the reasons set forth above and in the Engineering Statement, Omnipoint submits that it has satisfied tlie Ten Year construction requirements of 47 C.F.R. $24.203.

Respectfully submitted,
Omnipoint Philadelphia License, LLC

By: _____

Jerry O'Brien
Senior Director, Legal and Regulatory Affairs
16 Wing Drive
Cedar Knolls, NJ 07927
(973) 290-2489

Date: March 26, 1999

[1] Under 47 C.F.R. $24.203, PCS licensees may use either the 1990 or 2000 U.S. census data. Since the 2000 census has yet to be started, all calculations herein are, of necessity, based upon 1990 U.S. census data.

Engineering Statement
Supporting Omnipoint Philadelphia License, LLC's
Satisfaction of Ten Year Construction Requirements

This Engineering Statement has been prepared by TeleworX Consulting, Inc. in accordance with the standards established in 47 C.F.R. $24.203(c) to demonstrate compliance with the Ten Year construction requirements of 47 C.F.R. $24.203 with respect to the Omnipoint Philadelphia License, LLC's ("Omnipoint") PCS license, callsign KNLF715, file no. 00093-CW-L-96, constructed using PCS- 1900 technology. The initial license grant date is September 17, 1996.

Engineering Standards

47 C.F.R. § 24.203 requires licensees such as Omnipoint to ". . . serve with a signal level sufficient to provide adequate service.. ." a defined proportion of population. The phrases "adequate service" and "sufficient signal level" are not further defined nor discussed by the Commission's rules. Accordingly, it is necessary to develop these parameters in the context of PCS-I 900 equipment performance.

The PCS-l 900 system is configured to have balanced up-link and down-link performance, i.e., the coverage distance is the same, whether the path from the subscriber to the base station or the base station to the subscriber is considered. For simplicity of calculation and presentation, this report considers the base station to subscriber link.

The minimum receiver sensitivity of PCS- 1900 subscriber equipment is -102 dBm.[1] To this is it is necessary to add a margin to account for multipath and log-normal fading. A signal that averaged only -102 dBm would necessarily include instances of signal below this value and

[1] Personal Communications Services, PCS1900, Air Interface Specification – PN3389, Volume 1, Radio Path Physical Layer, JTC(Air)/94.08.04-231R4, 5.5.1, Reference Sensitivity Level, Table 5.14, page 70. Note, however, that many receivers currently manufactured are performing as much as 5 to 6 dB better than this minimum level.

would represent a service unacceptable to most customers. Omnipoint has used a stronger signal level, -93 dBm, as the threshold of reliable service.[1] This signal level provides a 9 dB fade margin (or a combination of penetration loss, body loss, multipath loss, log-normal and other losses).

Census Data

47 C.F.R. §§ 24.203 permits licensees to use either the 1990 or 2000 census figures. Since the 2000 census will not be started for another two years, obviously it is necessary to use 1990 data. The computerized database used in preparing is report is from the **1990** Census of Population and Housing Public Law 94-171 Data, U.S. Department of Commerce, Bureau of the Census, Data User Services Division. The data used consists of boundary files of census tracts and, of course, the population in each census tract. The vector boundary files were electronically "rasterized" into grid squares 200 meters on a side, with the population being assumed uniformly distributed within each grid square. The total population within the licensed market is 5,899,345.

Service Area Predictions

In order to determine the population receiving adequate service, a propagation prediction tool, Xcalibur from TeleworX, Inc. has been used. Xcalibur is used throughout Omnipoint for propagation modeling, including coverage predictions, interference calculations and frequency planning. Xcalibur uses the widely accepted COST 23 1 -Hata model for propagation predictions at PCS frequencies. To the basic COST 23 1-Hata model, Omnipoint has adjusted certain

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[1] The selected signal level, -93 dBm, matches the coverage threshold selected by American PCS, L.P. for its demonstration of five-year and ten-year coverage requirements using PCS 1900 technology for station KNLF-200, filed with the Commission June 19, 1996.

coefficients of the COST23 1 -Hata model to better match the predicted values to measured data, based upon extensive drive testing of operational base stations. These adjustments have enhanced the accuracy of Xcalibur and Omnipoint has verified that Xcalibur's results are consistent with network performance. TeleworX is familiar with these adjustments and verifications and agrees with them. These adjusted coefficients have been used in making the demographic calculations discussed in this Engineering Statement.

The demographic calculation function within Xcalibur was used to compute the population within the reliable service area. When performing these calculations, Xcalibur uses the census raster data file discussed earlier. If the average signal in the 200-meter grid square is over the threshold, the population is included. Otherwise, the population of the respective grid square is excluded.

The attached map depicts the area receiving a reliable PCS-1900 signal. The total population residing within the reliable PCS-l 900 signal is 5,411,615 representing 91.73% of the market population.

Conclusion

As demonstrated above, using 1990 census data, Omnipoint was providing reliable PCS-1900 service to an area representing 5,4 1 1,615 persons or 9 1.73% of the market population. Since 91.73% is greater than the threshold in 47 C.F.R. $24.203, Omnipoint has met the Ten Year construction requirement applicable to this market.

Prepared by

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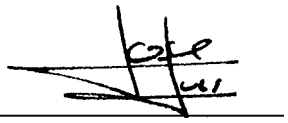


Jose L. Rodriguez, President
A statement of Mr. Rodriguez's qualifications is attached.

Qualifications of Jose L. Rodriguez

Mr. Rodriguez is President of TeleworX, Group, Inc., parent company for TeleworX Inc. and TeleworX Consulting. TeleworX Inc.specializes in wireless software development and network design applications and services that increase wireless network profitability by enhancing technical efficiency. TeleworX Consulting provides quality, high-level RF and fixed network engineering services, among many other technical and management services.

With over twelve years of experience designing, planning and optimizing cellular and wireless networks, Mr. Rodriguez has a well-established consulting practice and is presently engaged as an engineering design consultant for major mobile radio networks throughout Europe and North America. Through his practice, Mr. Rodriguez has designed and developed several GSM and PCS digital networks, and was instrumental in the preparation of nine winning international bids for wireless licenses, including national licenses in Belgium, France, Germany, Italy, Mexico, Portugal, Romania and Spain. Most notably, Mr. Rodriguez prepared the winning technical license application for the noted D2 digital GSM network in Germany, one of the world's largest wireless networks, with currently more than 2.3 million subscribers.

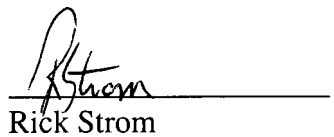
Mr. Rodriguez has been involved in the development of Xcalibur since its conception. Xcalibur, a product of TeleworX, is a well-established RF design and optimization software tool, providing high-performance network modeling and optimization capabilities to operators of cellular/PCS, GSM, ESMR, paging, WLL and

other types of wireless systems. In addition to its current use throughout all of Omnipoint's markets, Xcalibur is being, or has been used to assist engineers in the design and optimization of wireless systems throughout the world, including national networks in Portugal, Germany, Romania and Mexico, as well as multiple PCS systems in the United States.

In addition to his current efforts with PCS operators in the U.S., Mr. Rodriguez has also provided products and network optimization services for many of the top 30 cellular MSAs. He has also been involved in the formation and launch of several telecommunications joint ventures in Latin America. Mr. Rodriguez holds a Master's Degree in Telecommunications from the Polytechnic University of Barcelona, and currently resides in McLean, Virginia.

Statement of
Rick Strom

I am responsible for overseeing the construction of FCC License call sign KNLF715, including responsibility for the technical aspects of coverage demonstrations. I have provided to TeleworX Consulting, Inc. the Xcalibur databases containing the location and other relevant engineering parameters for the KNLF7 15 installation, as well as other related technical information, for the purpose of calculating the population residing within the area receiving a reliable signal. The information given to TeleworX is correct to the best of my personal belief and knowledge.



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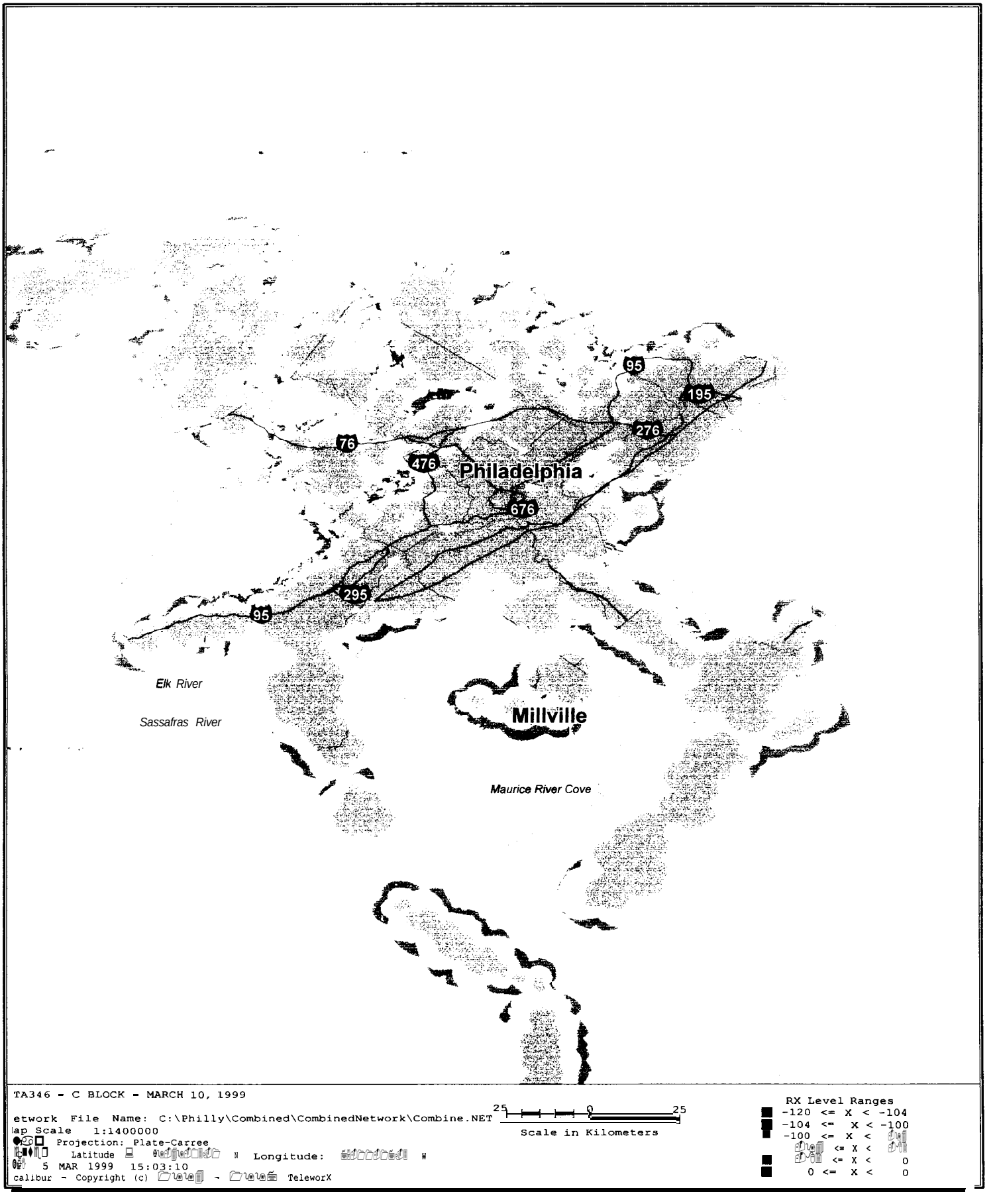
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